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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/840,182	04/24/2001	Naoki Kubo	0879-0312P	2643

2292 7590 04/22/2005

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EXAMINER

GENCO, BRIAN C

ART UNIT	PAPER NUMBER
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2615

DATE MAILED: 04/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/840,182	Applicant(s) KUBO, NAOKI	
	Examiner Brian C Genco	Art Unit 2615	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 December 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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Applicant's arguments filed December 23, 2004 have been fully considered but they are not persuasive.

Applicant argues that Lathrop teaches obtaining "raw" data from each of the middle processing steps and not storing image data obtained at one of the middle steps as final image data.

In response, Examiner notes that since the image data at the intermediate stages of processing is stored on the non-volatile storage device 32 and the storage device 32 is a final memory, then the image data stored on the storage device 32 at the intermediate stages of processing is stored as final image data.

Applicant argues that Lathrop does not teach storing a result of the image data after a processing stage in a processing sequence.

In response, Examiner respectfully disagrees. Examiner notes that Lathrop teaches two embodiments wherein in the first embodiment a series of processing algorithms are applied to sequential segments of an image. After each segment has been processed it is stored in a JPEG file. As such, in this embodiment it is clear that the result of the image data after a processing stage in a processing sequence is stored. In the second embodiment each of the above processing algorithms is sequentially applied to the entire image wherein after each processing the image is stored. As such, in this embodiment it is also clear that the result of the image data after a processing stage in a processing sequence is stored (column 4, lines 1-36).

Applicant argues that Lathrop does not teach designating by a user, a desired processing stage.

In response, Examiner respectfully disagrees. Examiner notes that Lathrop discloses to interrupt processing when the user takes a new image by pressing the shutter button. As such, upon pressing the shutter button, the user designates that it is desired to take a new image and interrupt processing. Therefore a user designates a desired processing stage.

Applicant argues that the .TIFF and .JPEG file extensions are not file names.

In response, Examiner respectfully disagrees. A complete file name indicates the file type. As noted by Applicant in the instant invention on page 10, lines 24-29 the file extension is part of the file name.

Applicant argues that Lathrop does not identify each stage of processing based on whether the data is .TIFF or .JPEG.

In response, Examiner notes that the claim limitations do not limit the symbol to identify each stage of processing. Rather, the claims limit that the symbol is added "according to a stage at which the image data has been obtained". As such, as broadly as claimed, Lathrop meets the claim limitations through the .JPEG file extension since if the file name includes the .JPEG file extension it indicates that processing of the image has started and therefore identifies a stage at which the image data has been obtained, namely that the image data has been obtained after processing has started.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-10 and 21 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

In regards to claims 1 and 21, Examiner can find no disclose in the specification to support the limitation that the image data obtained at the middle stage being stored in said storage medium as **final image data**.

Claims 2-10 depend from claim 1.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-3, 5-13, and 15-22 are rejected under 35 U.S.C. 102(e) as being anticipated by (USPN 6,288,743 to Lathrop).

In regards to claim 1, Lathrop discloses an image recording apparatus, comprising:

a storage device that stores in a storage medium, image data obtained at one of middle stages of image processing for processing signals outputted from an imaging device, the image data obtained at the middle stage being stored in said storage medium as final image data (e.g., column 3, line 51 – column 4, line 36; column 5, line 9 – column 7, line 10; wherein since the image data at the intermediate stages of processing is stored on the non-volatile storage device 32 and the storage device 32 is a final memory, then the image data stored on the storage device 32 at the intermediate stages of processing is stored as final image data).

In regards to claim 2, Lathrop discloses the image recording apparatus as defined in claim 1, wherein information is stored in the storage medium with the image data, the information indicating which middle stage the one is (e.g., Lathrop inherently stores which processing step the image is at so that the previously halted step is resumed at the point of interruption so that no previous processing steps need to be repeated; column 4, lines 19-36; column 6, lines 45-67).

In regards to claim 3, Lathrop discloses the image recording apparatus as defined in claim 2, wherein the information is added to a file in which the image data is stored (e.g., column 6, lines 1 and 2, and lines 45-49; column 7, lines 44-58).

In regards to claim 5, Lathrop discloses the image recording apparatus as defined in claim 2, wherein one of the following additional data is stored in the storage medium with the information: parameter data for the image processing, processing data used for the image processing, and image processing program for processing the image data, information on the image processing program, and reduced image data of the image data (e.g., Lathrop discloses storing a thumbnail in the storage medium; column 5, lines 33-57).

In regards to claim 6, Lathrop discloses the image recording apparatus as defined in claim 5, wherein the additional data is added to a file in which the image data is stored (e.g., column 6, lines 1-12).

In regards to claim 7, Lathrop discloses the image recording apparatus as defined in claim 5, wherein the additional data is stored in a file other than a file in which the image data is stored (e.g., Examiner notes that the claimed image data is both the TIFF file and the JPEG file wherein the thumbnail image is stored as a separate file until the JPEG file is created; column 5, lines 33-41).

In regards to claim 8, Lathrop discloses the image recording apparatus as defined in claim 1, further comprising a reduced image data producing device that produces reduced image data at a last stage of the image processing from the signals outputted from the imaging device (e.g., the thumbnail image is produced at a last stage of preliminary processing; column 5, lines 33-57);

wherein the reduced image data is stored in the storage medium with the image data (e.g., column 5, lines 51-57).

In regards to claim 9 see Examiners notes on the rejections above.

In regards to claim 10, Lathrop discloses the image recording apparatus as defined in claim 1, further comprising a file naming device that adds a predetermined symbol to a file name of a file in which image data is stored according to a stage at which the image data has been obtained (e.g., Examiner notes that upon starting of processing the predetermined symbol JPEG is added to the file name; column 6, lines 1-12).

In regards to claim 11, Lathrop discloses an image recording apparatus, comprising:
an imaging device that converts an optical image into signals (e.g., element 16 of Fig. 1);

a designating device by which a user designates a desired processing stage out of an image processing sequence in which a plurality of processing stages are sequentially performed, for processing the signals outputted from said imaging device (e.g., the shutter button is the designating device for designating the previous stage; column 6, lines 50-59; also note that the embodiment where processing is implemented by processing the full image sequentially using each algorithm and the embodiment where processing is implemented by processing all of the algorithms on sequential image segments read on the claimed image processing sequence; column 7, lines 1-10);

a controlling device that obtains image data at the middle stage designated by the designating device; and

a storing device that stores the image data in a storage medium (e.g., upon the completion of each step the processed image is obtained and stored; column 6, lines 45-49).

In regards to claims 12 and 13 see Examiner's notes on the rejection of claims 2 and 3 respectively.

In regards to claims 15-20 see Examiner's notes on the rejection of claims 5-10 respectively.

In regards to claims 21 and 22 see Examiner's notes on the rejections above.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

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having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 4 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over (USPN 6,288,743 to Lathrop).

In regards to claims 4 and 14 see Examiner's notes on the rejections above. Examiner notes that Lathrop discloses a preferred embodiment wherein instead of processing the image data by segments wherein each segment performs all of the steps of Fig. 3, each step of Fig. 3 is applied to the entire image data wherein the image data is stored between each step (column 7, lines 1-10). Examiner further notes that implicit in the disclosure is the storage of information indicating which step of Fig. 3 the image is currently on so that the processing can pick up where it left off without repeating processing steps. However, Examiner notes that Lathrop is silent as to how this information would be stored. Implicitly this information must either be stored in the same file as the image data, i.e., in the header, or as a separate file such as a metadata file indicating which processing step the image data is at. Examiner takes Official Notice to the fact that storing processing information of image data in a header is functionally equivalent to storing it in a separate file linked to the image data. As such, it would have been obvious to one of ordinary skill in the art at the time of the invention to have stored the information either be stored

in the same file as the image data, i.e., in the header, or as a separate file such as a metadata file indicating which processing step the image data is at since they are both functional equivalents of each other.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian C. Genco who can be reached by phone at 571-272-7364 or by fax at 571-273-7364. The examiner can normally be reached on Monday thru Friday 8:30am to 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Groody can be reached at 571-272-7950. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the customer service office whose telephone number is 571-272-2600.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Brian C Genco
Examiner
Art Unit 2615

April 18, 2005


TUAN HO
PRIMARY EXAMINER